

This listing of claims will replace all prior versions, and listings, of claims in the application.

LISTING OF CLAIMS

1. (currently amended) An apparatus for immediately outputting a
5 response of a synchronous system to an asynchronous event, comprising:

a synchronous system configured to receive an asynchronous event at its
input ~~after synchronization of the asynchronous event at its input~~ to
produce an output signal at its output;

10 an advanced calculation unit configured to calculate an asynchronous
output signal identical to the output signal that will be output by the
synchronous system in response to the asynchronous event
provided at an input of the advanced calculation unit, the
asynchronous output signal being calculated in advance of the
synchronous system producing the output signal; and

15 a switching device that selectively passes on the asynchronous output
signal from the advanced calculation unit or the output signal from
the synchronous system.

2. (previously presented) The apparatus as claimed in claim 1, wherein
20 the switching device has at least two input connections, one of the at least
two input connections is connected to the output connection of the
synchronous system, and at least one of the at least two input
connections is connected to the output of the advanced calculation
unit.

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3 (previously presented) The apparatus as claimed in claim 2, wherein

the switching device has a control connection, via which the input signals intended to be passed on by the switching device are defined.

5 4. (currently amended) The apparatus as claimed in claim 1, wherein the apparatus is configured to output the ~~asynchronous~~ output signal from the advanced calculation unit in response to the occurrence of the ~~asynchronous~~ event.

10 5. (currently amended) The apparatus as claimed in claim 1, wherein the apparatus is configured to output the output signal from the synchronous system as soon as the output signal from the synchronous system represents a response to the asynchronous event ~~after synchronization~~.

15 6. (currently amended) The apparatus as claimed in claim 1, wherein the synchronous system is configured to output the output signal within a first period of time to provide the advanced calculation unit a sufficient amount of time after the first period of time to calculate an ~~asynchronous~~ output signal to a next asynchronous event at its
20 input.

25 7. (currently amended) The apparatus as claimed in claim 1, wherein the advanced calculation unit is configured to complete advanced calculations to a next asynchronous event before the next ~~synchronized~~ asynchronous event occurs ~~is provided to the input of the synchronous system~~.